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"Welcome Shelter Near Trail's End"

FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for

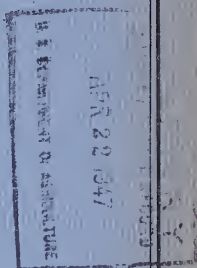
COLORADO RIVER DRAINAGE BASIN

APRIL 1, 1947

By

Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Colorado Agricultural Experiment Station

Data included in this report were obtained by the agencies named above in cooperation with the U. S. Forest Service, National Park Service, State Engineers of Colorado, Wyoming and New Mexico and other Federal, State and local organizations.



April 1, 1947

WATER SUPPLY OUTLOOK

COLORADO RIVER DRAINAGE

It is estimated that the April-September flow of the Colorado River into Lake Mead will be near the past 10-year average.

Snow cover on the headwaters of the Colorado River and its tributaries in Colorado, as shown by April 1 snow surveys, is well above normal and much above April 1, 1946. However, the water supply situation on streams originating in southwestern Colorado is not so favorable. The flow of the Animas River will be normal but the flow of the San Juan and Dolores Rivers will be decidedly deficient. Recent precipitation has ranged from above normal in northern Colorado to a substantial deficiency in the south. On the Green River watershed in Wyoming runoff estimates have declined during the past month to 95 percent of last year's flow. Drought conditions continue in Arizona and western New Mexico. Precipitation there has been subnormal and no snow is reported. Reservoir storage is low.

COLORADO RIVER AND
TRIBUTARIES IN COLORADO

Colorado River (Above Grand Junction). Snow cover on the Colorado River watershed above Grand Junction is now 116 percent of normal and 40 percent greater than a year ago. The increment of snow near the Continental Divide has been high during March, although the increase has been general over the whole watershed including lower areas. The water supply outlook is much improved over March 1. Precipitation in the valley areas and stream flow are above normal. Range and crop conditions appear good for the coming year.

Gunnison River. The summer flow of the Gunnison will be nearly twice as great as last year. Average snow water content on the watershed is now slightly above average and 60 percent over April 1, 1946. Precipitation at medium and lower elevations is reported as poor and irrigation is necessary to start crops on the Uncompahgre project. Stream flow in the Gunnison has been above normal, while on the Uncompahgre it is somewhat deficient. Storage in Taylor Park Reservoir is now 70,100 acre-feet, as compared to 84,500 on April 1, 1946.

Yampa and White Rivers. Snow on the watershed of the Yampa River is now above normal and 18 percent above last year. This area has had more than adequate precipitation throughout the winter season and the summer flow of this stream should be well above average. Spring flow is already high due to low snow melt. The snow cover on the headwaters of the White River is similar to that of the Yampa except that the situation is more favorable. The snow water content is 46 percent over a year ago. Range and crop conditions in the Meeker area are reported as good. The summer discharge of the Elk and Little Snake Rivers is estimated to be near average and a little higher than last year.

THE
FEDERAL BUREAU OF INVESTIGATION
UNITED STATES DEPARTMENT OF JUSTICE

MEMORANDUM FOR THE DIRECTOR, FBI
SUBJECT: [Illegible]
[Illegible text follows, appearing to be a summary or report.]

[Illegible text block, likely containing details of an investigation or case.]

[Illegible text block, possibly a conclusion or recommendation.]

San Juan and Animas Rivers. During the month of March a decided deficiency in snow cover developed on the headwaters of the San Juan River. The snow water content on the Upper San Juan courses is practically the same as on March 1, reflecting the general snow condition in that area. The situation is considerably better than last year, but the discharge of the San Juan at Rosa, New Mexico, is estimated not to exceed 65 percent of normal. On the Los Pinos River the low snow is gone but Vallecito Reservoir now holds in storage 60,000 acre-feet as compared to 41,000 April 1, 1946. On the Animas River the snow cover is much better than on the San Juan. The snow water content measured at snow courses at Silverton and Cascade now average over six inches as compared to one inch a year ago. The flow of the Animas at Durago is expected to be about normal and nearly twice as much as for the 1946 season. Precipitation in the valley areas has been deficient and soil moisture conditions are reported as fair to good.

Dolores River. As in other areas in southwestern Colorado the snow cover on the Dolores River watershed is deficient. The snow water content is especially low at medium elevations. The discharge of this stream will probably not exceed 70 percent of normal. However, the flow will exceed that of last season. The surface soil is reported as dry and the ranges are in poor condition at lower elevations. Stream flow is normal due to early melting. There are 8,000 acre-feet in storage in both Groundhog and Narraquinepp Reservoirs.

GREEN RIVER IN WYOMING

The estimates of summer discharge from the Green River watershed in Wyoming have been revised downward slightly, based on recent snow surveys and sub-normal precipitation at lower elevations. The average snow water content is six percent below normal and about the same amount under April 1, 1946. Due to above average precipitation earlier in the winter season soil moisture conditions are above normal and the range outlook is favorable. Stream flow is above average. There is no snow in valley areas and snow is melting fast in the foothills. The discharge of the Green River at Linwood, Utah is expected to be 1,100,000 acre-feet during the April to September period. In Utah the snow cover on Green River tributaries is about average.

COLORADO RIVER AND TRIBUTARIES IN ARIZONA

The drought condition of the past winter season in Arizona was continued through March. There has been no snow reported as of April 1 on any of the established courses on the watershed of the Gila, Salt, Little Colorado and Williams Rivers. Precipitation throughout the winter has been definitely sub-normal and recent precipitation has been negligible. The flow of the Gila River is extremely low. Soil moisture conditions are poor. Ranges are dry and in poor condition. Storage in the four major reservoirs on the Salt River is now 408,000 acre-feet, as compared with 645,000 a year ago. In San Carlos Reservoir, on the Gila River, there is now in storage 13,000 acre-feet. Last year on April 1 it was 26,000 and the ten-year average is 305,000.

The storage in Lake Mead is 16,383,000 acre-feet, or 1,300,000 acre-feet under April 1, 1946.

COLORADO RIVER DRAINAGE BASIN
STREAM FLOW FORECASTS, April 1, 1947

Basin and Stream	April-Sept., Incl., Streamflow Thousands Acre Feet			
	Forecast	Measured Runoff		10-year avg. 1936-1945
	1947	1946	1945	
<u>GREEN</u>				
Green at Linwood, Utah	1,100,000	1,181,000	1,092,640	1,282,000
Little Snake at Lilly	375,000		447,000	365,000
Elk at Clark	225,000		266,000	197,000
Yampa at Steamboat Springs	260,000		286,000	215,000
White at Meeker	325,000		354,000	263,000
Duchense at Myton	200,000	248,000		293,000
<u>COLORADO</u>				
Colorado at Glenwood Springs	1,650,000	1,148,000	1,402,000	1,186,000
Roaring Fork at Glenwood Springs	800,000	635,000	750,000	730,000
Gunnison at Grand Junction	1,700,000	906,000	1,457,000	1,879,000
Uncompahgre at Colona	175,000	110,000	174,000	227,000
San Juan at Rosa, N. M.	400,000			838,000
Animas at Durango	475,000	340,000	465,000	681,000
Dolores at Dolores	225,000	194,000	306,000	422,000
San Miguel at Naturita	275,000	133,000		341,000
Colorado at Bright Angel, Ariz.	9,700,000	6,505,000	9,562,000	11,045,000
				10,001,000

SNOW SURVEYS AND IRRIGATION WATER FORECASTS

COLORADO RIVER BASIN

STATUS OF RESERVOIR STORAGE, APRIL 1, 1947

BASIN AND STREAM	RESERVOIR	USABLE CAPACITY (Thous. A. Ft.)	THOUSANDS ACRE FEET IN STORAGE ABOUT APRIL 1, 1947					10-year-avg. 1936-45*
			1947	1946	1945	1944	1943	
COLORADO DRAINAGE	Taylor Park	106.2	70.1	85.4	65.6	86.5	47.0	47.0
	Vallecito	126.3	60.1	40.8	9.0	29.2	31.4	31.4
	Groundhog Creek	21.7	8.0	8.5	7.5	15.0	12.7	12.7
	Blue River	146.9	72.4	64.1	53.0	45.3	30.8	30.8
	Colorado River	27935.0	16383.0	17776.0	21236.0	19100.0	16528.6	16528.6
	Colorado River	688.0	620.4	616.0**	592.0**	611.0**	537.0**	537.0**
SALT AND GILA DRAINAGE	Roosevelt	1420.0	80.6	362.1	658.9	862.1	706.2	706.2
	Horse Mesa	245.1	234.1	224.5	229.6	230.8	202.8	202.8
	Mormon Flat	58.0	40.6	38.7	43.1	47.1	46.1	46.1
	Stewart Mt.	70.0	52.2	19.4	43.6	44.4	45.6	45.6
	Partlett	200.0	10.3	11.8	75.9	153.6	61.0	61.0
	Carl Pleasant	173.0	14.6	3.6	28.4	34.2	38.9	38.9
Gila River	San Carlos	1200.0	13.1	26.0	120.9	272.9	305.5	305.5

*Some for shorter periods

**March 15 readings

SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for

COLORADO RIVER BASIN

April 1, 1947

SUMMARY OF APRIL 1 SNOW SURVEYS AND COMPARISON OF DATA WITH THAT OF PREVIOUS YEARS FY WATERSHEDS

WATERSHEDS	Snow Depth			Water Content			Snow Density			1947 Water Content in	
	Twelve year		1947	Twelve year		1947	Twelve year		1947	Twelve year	1946
	In.	Avg.*	In.	In.	Avg.*	In.	Percent	Avg.*	Percent	avg.*	1946
COLORADO RIVER	In.	In.	In.	In.	In.	In.	Percent	Percent	Percent		
Colorado River**	46.5	38.4	52.7	14.0	11.6	16.2	22	30	31	116	140
Yampa River	53.6	42.3	54.0	17.7	15.4	18.1	4	33	34	102	118
White River	50.0	41.6	55.9	16.8	12.7	18.5	2	34	30	110	146
Roaring Fork	40.0	32.3	42.6	12.6	9.6	15.1	3	32	30	120	158
Gunnison River	50.3	33.8	49.9	16.2	10.4	16.6	10	33	31	102	160
Uncompahgre River	42.6	31.7	41.4	14.0	10.2	14.7	1	33	35	105	144
Dolores River	36.7	16.4	26.0	11.4	4.8	7.5	4	31	29	66	156
San Juan River	39.0	16.5	25.2	13.6	4.6	8.5	7	35	28	63	185
Animas River	30.5	13.4	27.8	9.6	4.2	9.6	3	32	31	100	229
Gila River	1.1	0.0	0.0	0.4	0.0	0.0	4	36	--	--	--
Salt River	0.6	0.0	0.0	0.2	0.0	0.0	5	33	--	--	--
Green River	44.4	40.5	42.1	14.0	13.5	13.2	17	32	33	94	98
Duchesne River	44.3	40.5	40.9	13.3	10.6	13.0	5	30	26	98	123
Colorado River***	33.4	25.3	24.1	10.5	6.9	7.3	5	32	30	70	106
Virgin River	43.0	24.2	28.5	15.9	7.8	13.8	5	37	32	87	177

Some for shorter periods. **Above Grand Junction ***Green to Virgin Rivers

P R E C I P I T A T I O N I A T A

WATERSHED	STATE	Precipitation*		Departure		Precipitation*		Departure	
		October 1 to	March 31	from	Normal	March	Normal	from	Normal
		Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches
Colorado	Colorado	9.53	9.53	-0.32	1.41	0.67	-0.60	-0.60	-0.60
Green	Wyoming	6.25	6.25	+1.61	0.18	0.18	-0.19	-0.19	-0.19
San Juan	New Mexico	3.05	3.05	-1.92	0.18	0.18	-0.70	-0.70	-0.70
Colorado	Arizona	4.87	4.87	-2.82	0.13	0.13	-1.13	-1.13	-1.13
Utah	New Mexico	2.81	2.81	-2.22	0.26	0.26	-0.51	-0.51	-0.51

Seasonal precipitation was below normal except on the Green River in Wyoming. March precipitation was below normal in all areas.

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COLORADO RIVER SNOW SURVEYS, APRIL 1, 1947

DRAINAGE BASIN and SNOW COURSE		LOCATION			SNOW COVER MEASUREMENTS							
No. and State	Sec.	Typ.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Water Content (Inches)			Years of Record	Past Record Av. Water Content (Inches)	
COLORADO RIVER												
(Above Grand Junction)												
Park View*	24	5N	78W	9200	4/1	38.9	10.8	8.6	7.8	12	10.0	
Phantom Valley	7	5W	75W	9300	2/28	34.1	10.8	7.1	9.9	12	9.4	
Berthoud Pass	16	25	75W	9700	4/1	63.5	17.8	15.4	14.2	12	15.7	
Tennessee Pass*	19	21	80W	10200	3/31	40.0	10.1	5.4	6.9	12	8.4	
Ind. Pass Tunnel	33	11S	82W	10200	3/28	63.1	25.5	18.6	15.8	12	18.4	
N. Lost Trail Cr.	34	20	11S	9200	4/1	43.3	13.4	8.4	18.0	12	13.8	
M. Fork Camp Cr.	37	16	3S	9000	4/1	41.6	11.3	9.3	9.6	12	10.0	
Fiddler Gulch	44	8S	80W	11000	4/1	59.0	18.0	14.1	12.1	12	14.3	
Nast	45	1	9S	8700	4/1	21.5	6.4	1.9	4.4	12	5.6	
Mesa Lakes	56	35	11S	96W	10000	3/31	17.2	11.9	20.7	11	17.8	
Lulu	59	25	6N	76W	10200	3/30	54.8	13.9	16.1	10	16.5	
Willow Creek P.	62	1	4N	78W	9500	4/1	48.2	14.4	11.8	10	18.0	
N. Inlet Grand L.	64	28	4N	75W	9000	3/31	39.8	19.4	17.8	10	19.9	
Lake Irene	65	2	5N	75W	10600	3/30	71.8	10.7	20.9	10	16.2	
Thunderbolt Peak	66	22	2N	74W	9500	3/31	68.9	11.8	11.0	10	9.2	
Arrow	69	34	1S	75W	9900	4/1	38.4	12.1	6.8	10	10.4	
Lapland	70	16	2S	76W	9300	3/27	43.1	12.1	10.1	10	10.4	
Fremont Pass #2	72	28	8S	79W	11400	4/1	66.8	15.4	12.5	18	15.8	
Trickle Divide	85	23	11S	94W	10000	3/28	81.8	16.7	32.5	12	27.4	
Lynx Pass No. 2	91	27	2N	83W	9100	4/1	51.1	18.9	11.0	12	12.7	
Shrine Pass	96	15	6S	79W	10500	4/1	68.4	16.9	14.8	6	16.8	
Grizzly Peak	97	2	5S	76W	11250	4/2	65.5	21.3	15.3	6	17.4	
Ivanhoe	100	12	9S	82W	10400	3/30	59.1	18.5	11.0	2	14.8	
Glen-Mar Ranch	102	31	12S	77W	8850	4/1	39.3	10.4	---	1	10.4	
			Average for drainage				16.2	11.6	13.8		14.0	
YAMPA RIVER												
Dry Lake	6 Colo.	26	7N	84W	8200	3/31	51.1	18.4	23.3	12	19.8	
Columbine Lodge*	8 "	21	5N	82W	9300	4/2	65.3	22.6	21.5	12	21.8	
Elk River	9 "	6	10N	85W	8700	3/31	48.6	14.7	22.7	12	16.5	
Lynx pass No. 2*	91 "	27	2N	83W	9100	4/1	51.1	16.7	11.0	12	12.7	
			Average for drainage				18.1	15.4	19.9	9	17.7	
Rambler R.S.	10 Wyo	25	14N	86W	8600	3/31	66.1	23.8	---		24.3	
WHITE RIVER												
Burro Mountain	35 Colo.	15	2S	91W	9000	3/29	62.6	19.5	15.1	12	18.5	
Rio Blanco	36 "	28	1N	88W	8500	3/31	49.2	17.5	20.6	12	15.2	
			Average for drainage				18.5	12.7	20.0		16.8	

*On adjacent drainage

*On adjacent drainage

COLORADO RIVER SNOW SURVEYS, APRIL 1, 1947

DRAINAGE BASIN and SNOW COVER		LOCATION				SNOW COURSE MEASUREMENTS							
		No. and State	Sec.	Twp. Lat.	Range Long.	Elev.	Date of Survey	Snow Depth (Inches)	Water Content (Inches)			Past Record Av. Water Content (Inches)	
COLORADO RIVER													
ROARING FORK													
Ind. Pass Tunnel	33 Colo.	30	11S	82W	10200	3/28	63.1	25.5	18.6	15.8	12	18.4	
N. Lost Trail Cr.	34 "	20	11S	87W	9200	4/1	43.3	13.4	8.4	18.0	12	13.8	
Nast	45 "	1	9S	83W	8700	4/1	21.5	6.4	1.9	4.4	12	5.6	
Ivanhoe	100 "	12	9S	82W	10400	3/30	59.1	18.5	11.0	--	2	14.8	
				Average for drainage			42.6	15.1	9.6	12.7		12.6	
GUNNISON RIVER													
Crested Butte	18 Colo.	22	13S	86W	9000	4/1	43.8	13.4	8.3	15.0	12	14.6	
Marshall Creek	42 "	24	48N	6E	10800	3/30	40.5	11.9	7.6	13.2	12	13.0	
Poncha Creek*	43 "	19	48N	7E	10500	3/30	30.8	9.7	6.1	11.7	12	11.0	
Park Cone	46 "	19	14S	82W	9700	3/31	35.8	10.2	7.1	--	11	9.1	
Alexander Lake	53 "	2	12S	95W	10000	3/27	73.0	25.0	13.4	26.6	11	23.7	
Snowshoe Mesa	55 "	14	13S	89W	7500	3/30	18.9	7.8	4.2	9.8	11	7.7	
Ironton Park	58 "	29	43N	7W	9800	4/1	41.4	14.7	10.2	11.4	11	14.0	
Trickle Divide	85 "	23	11S	94W	10000	3/28	81.8	30.4	19.5	32.5	8	27.4	
Park Reservoir	87 "	34	11S	94W	9500	3/28	77.4	27.3	15.4	30.8	8	25.0	
Porphyry Creek	89 "	19	49N	6E	10800	3/31	56.0	16.0	12.2	18.4	8	16.4	
Sunshine Mt. No. 2	94 "	35	44N	6W	10200	--	--	--	8.8	9.8	--	--	
Kannah Creek	101 "	5	12S	95W	10700	3/28	75.5	26.8	--	--	1	26.8	
				Average for drainage			49.9	16.6	10.4	18.8		16.2	
UNCOMPAHGRE RIVER													
Ironton Park	58 Colo.	29	43N	7W	9800	4/1	41.4	14.7	10.2	11.4	11	14.0	
SAN JUAN RIVER													
Wolf Creek Pass*	26 Colo.	4	37N	2E	10000	3/31	60.0	20.7	12.7	33.4	12	28.9	
Upper San Juan	29 "	10	37N	1E	10000	3/31	61.4	21.3	14.5	35.8	12	32.6	
Silverton Sub. S.	30 "	10	41N	7W	9400	4/1	16.7	5.4	0.3	3.4	12	4.4	
Cascade	31 "	12	39N	9W	8850	3/31	23.8	8.2	2.0	13.7	12	10.4	
Granite Peaks	93 "	24	37N	6W	7950	3/31	0.0	0.0	0.3	5.9	7	8.2	
Chama Divide*	17 N. Mex.		36.9N	106.7W	7750	3/30	0.0	0.0	0.0	5.3	8	2.5	
Chamita*	18 "		36.9N	106.7W	8500	3/30	14.3	4.2	2.6	11.4	6	8.0	
				Average for drainage			25.2	8.5	4.6	15.6		13.6	

*On adjacent drainage

COLORADO RIVER SNOW SURVEYS, APRIL 1, 1947

DRAINAGE BASIN and SNOW COURSE		LOCATION			SNOW COURSE MEASUREMENTS						
No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Water Content(Inches)	1945	Years of Record	Past Record Av. Water Content (Inches)	
COLORADO RIVER											
DOLORES RIVER											
23 Colo.	11	39N	11W	8700	4/1	16.2	3.6	9.4	12	7.9	
24 "	6	42N	8W	8600	3/31	16.0	4.9	8.2	12	7.2	
25 "	24	41N	10W	10300	4/1	48.1	14.6	19.1	12	17.2	
90 "	23	41N	13W	8900	3/31	23.7	6.1	14.1		13.3	
		Average for drainage				26.0	7.5	12.7		11.4	
ANIMAS RIVER											
30 Colo.	10	41N	7W	9400	4/1	16.7	5.4	3.4	12	4.4	
31 "	12	39N	9W	8850	3/31	23.8	8.2	13.7	12	10.4	
58 "	29	43N	9W	9800	4/1	41.4	14.7	11.4	11	14.0	
		Average for drainage				21.3	9.4	9.5		9.6	
GILA RIVER											
11 N.Mex.	31	6S	20W	8000	4/1	0.0	0.0	2.9	10	0.5	
14 "	6	6S	21W	8000	4/1	0.0	0.0	2.6	10	0.4	
22 "	20	10S	10W	7850	4/1	0.0	0.0	0.0	5	0.0	
23 "	6	11S	10W	7800	4/1	0.0	0.0	--	2	0.0	
3 Ariz.	23	6N	30E	8500	4/1	0.0	0.0	1.4	10	0.2	
4 "	13	4N	30E	8000	4/1	0.0	0.0	3.4	9	0.7	
5 "	26	5N	30E	8000	4/1	0.0	0.0	4.0	10	0.7	
		Average for drainage				0.0	0.0	2.7		0.4	
SALT RIVER											
6 Ariz.	14	8N	23E	7200	4/1	0.0	0.0	1.8	9	0.2	
7 "	2	9N	21E	6000	4/1	0.0	0.0	0.1	9	0.0	
9 "	28	8N	23E	7000	4/1	0.0	0.0	0.2	6	0.0	
3 "	23	6N	30E	8500	4/1	0.0	0.0	1.4	10	0.2	
5 "	26	5N	30E	8000	4/1	0.0	0.0	4.0	10	0.7	
		Average for drainage				0.0	0.0	1.7		0.2	

On adjacent drainage

*On adjacent drainage

COLORADO RIVER SNOW SURVEYS, April 1, 1947

LOCATION				SNOW COURSE MEASUREMENTS									
DRAINAGE BASIN and SNOW COURSE	No. and State	Sec.	Twp.	Range	Elev. of Survey	Date of Survey	Snow Depth (Inches)	Water Content (Inches)			Years or Record	Past Record	
								1947	1946	1945		Av. Water Content (Inches)	
VERDE RIVER					COLORADO RIVER								
Iron Springs*	11 Ariz.	22	14N	3W	6200	4/1	0.0	0.0	0.0	--	2	0.0	
Camp Wood	12 "	3	16N	6W	5700	4/1	0.0	0.0	--	--	1	0.0	
Mingus Mountain	" "	3	15N	2E	7100	4/1	0.0	0.0	--	--	1	0.0	
Mormon Lake*	" "	13	18N	8E	7350	4/1	0.0	0.0	--	--	1	0.0	
Fort Valley*	" "	22	22N	6E	7350	4/1	0.0	0.0	--	--	1	0.0	
Chalender*	" "	27	22N	3E	7100	4/1	0.0	0.0	--	--	1	0.0	
							0.0	0.0	--	--		0.0	
LITTLE COLORADO RIVER					Average for drainage								
Forestdale*	7 Ariz.	2	9N	21E	6000	4/1	0.0	0.0	0.0	0.1	9	0.0	
McHary	6 "	14	8N	23E	7200	4/1	0.0	0.0	0.0	1.8	9	0.2	
Nutricos*	3 "	23	6N	30E	8500	4/1	0.0	0.0	0.0	1.4	10	0.2	
Mormon Lake	" "	13	18N	8E	7350	4/1	0.0	0.0	--	--	1	0.0	
Fort Valley	" "	22	22N	6E	7350	4/1	0.0	0.0	--	--	1	0.0	
							0.0	0.0	--	--		0.0	
							0.0	0.0	0.0	--		0.1	
WILLIAMS RIVER													
Iron Springs	11 Ariz.	22	14N	3W	6200	4/1	0.0	0.0	0.0	--	2	0.0	
Camp Wood*	12 "	3	16N	6W	5700	4/1	0.0	0.0	--	--	1	0.0	
Willow Ranch	" "	16	21N	11W	5000	4/1	0.0	0.0	--	--	1	0.0	
							0.0	0.0	--	--		0.0	

*On adjacent drainage

COLORADO RIVER SNOW SURVEYS, April 1, 1947

DRAINAGE BASIN and SNOW COURSE	LOCATION			SNOW COURSE MEASUREMENTS								
	No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Water Content (Inches)		Years of Record	Past Record @ Content (Inches)	
GREEN RIVER East Rim Divide Dutch Joe R.S. Mulligan Park Kendall R.S. Loomis Park Snyder Basin R.S. Piney-LaBarge Daniels-Stubbs Lost Lake East Portal E. Port-Strawberry D. Hewinta R.S. Hole-In-Rock Lake Fork Mtn. Paradise Park Mosby Mtn.No.2 King's Cabin Indian Canyon Gooseberry Res. Mammoth R.S. Staley Ranch Dry Valley Divide Clear Creek Hutngtn-Hrseshoe Widdsoe Escelnte	44 Wyo.	32	37N	111W	7950	4/1	35.0	9.7	11.6	8.6	12	11.2
	23 "	33	31N	104W	8700	3/31	34.3	9.0		6.9	11	7.7
	24 "	17	35N	108W	8900	4/1	43.4	13.2	13.2	8.5	12	10.4
	25 "	23	38N	110W	7900	4/1	36.8	11.9	15.5	7.2	11	11.4
	26 "	14	37N	111W	8500	3/31	49.5	16.7	18.6	10.6	12	15.5
	27 "	15	29N	114W	8040	3/27	40.2	11.6	17.9	9.7	11	11.9
	28 "	19	29N	114W	8820	3/27	51.4	17.0	21.8	15.5	11	16.5
	23 Utah	17	28	12W	8000	4/1	38.0	12.5	11.0	15.7	12	14.4
	28 "	4	28	9E	9900				--	22.5		
	33 "	36	7S	6E	7600	4/1	28.2	9.0	10.4	11.9	12	12.2
	34 "	34	7S	6E	8000	4/1	54.3	18.2	19.1	19.5	12	20.4
	34 "	33	3N	13E	9500	4/1	34.6	9.2	10.4	7.4	9	9.1
	35 "	13	2W	15E	9150	4/1	27.5	6.4	--	3.6	11	5.6
	36 "	2	2N	5W	10500	4/1	45.0	12.6	8.4	7.9	12	10.0
	37 "	7	3N	1E	10500	4/1	53.6	17.7	8.1	--	11	11.9
	38 "	5	2N	1E	9500	4/1	47.4	15.6	8.4	8.4	11	9.4
	39 "	22	1S	21E	8800	4/1	40.8	11.1	9.0	12.2	12	9.8
	40 "	2	11S	10E	9100	4/1	38.9	12.6	4.0	10.3	12	9.3
	41 "	25	11S	5E	8700	4/1	48.4	16.2	16.4	19.0	12	20.1
	42 "	13	13S	5E	8800	4/1	49.4	15.4	16.9	21.1	12	21.5
	42A "	32	12S	7E	7600				3.5	6.9		
	42B "	20	12S	8E	7800				7.0	9.6		
	42C "	28	13S	7E	8150				2.5	8.3		
	43 "	12	14S	5E	9800	4/1	59.4	19.3	21.7	23.2	12	25.7
	53 "	22	34S	1W	9500	4/1	22.0	8.0	4.1	12.1	12	9.4
								42.1	13.2	13.5		14.6

Average for period of record.

Average for drainage

© Average for period of record.

COLORADO RIVER SNOW SURVEYS, April 1, 1947

LOCATION				SNOW COURSE MEASUREMENTS									
				Water Content(Inches)				Past Record					
No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (inches)	1947	1946	1945	Years of Record	Av. Water @ Content (Inches)		
COLORADO (Green to Virgin Rivers)													
47 Utah	26	17S	4E	10200	4/1	73.1	24.6	--	20.8	11	22.5		
48 "	25	17S	4E	10000	4/1	42.9	14.1	15.7	20.4	10	16.9		
51 "	35	26S	1E	8700	4/1	15.8	4.3	5.4	5.0	12	6.2		
54 "	36	36S	4W	8000	4/1	0.0	0.0	0.0	8.8	10	5.0		
64 "	29	26S	24E	8500	4/1	26.8	7.2	6.1	12.5	12	9.4		
65 "	36	33S	22E	9000	4/1	35.1	10.8	7.2	19.6	11	14.8		
						Average for drainage	7.3	6.9	13.3		10.5		
VIRGIN RIVER													
56 Utah	22	38S	6W	7500	4/1	0.0	0.0	0.0	11.8	12	5.7		
57 "	24	38S	7W	7700	4/1	0.0	0.0	3.1	14.8	12	10.0		
58 "	11	38S	8W	8560	4/1	25.4	13.4	8.3	24.4	11	17.1		
59 "	13	37S	9W	10200	4/1	71.0	36.8	16.1	31.6	12	26.5		
61 "	20	37S	9W	9200	4/1	46.3	18.7	11.5	21.0	12	20.2		
						Average for drainage	13.8	7.8	20.7		15.9		
DUCHESSNE RIVER													
23 Utah	7	2S	12W	8000	4/1	38.0	12.5	11.0	15.7	12	14.4		
28 "	4	2S	9E	9900				--	22.5				
33 "	36	7S	6E	7600	4/1	28.2	9.0	10.4	11.9	12	12.2		
33A "	34	7S	6E	8000	4/1	54.3	18.2	19.1	19.5	12	20.4		
36 "	2	2W	5W	10500	4/1	45.0	12.6	8.4	7.9	12	10.0		
40 "	2	11S	10E	9100	4/1	38.9	12.6	4.0	10.3	12	9.3		
						Average for drainage	13.0	10.6	13.1		13.3		

*On adjacent drainage. @Average for period of record.

The following organizations cooperate in the snow surveys and irrigation water supply forecasts for the Colorado, Missouri-Arkansas and Rio Grande watersheds by furnishing funds or services.

STATE

- Colorado State Engineer
- Wyoming State Engineer
- Utah State Engineer
- New Mexico State Engineer
- Montana State Engineer
- Nebraska State Engineer
- Colorado Experiment Station
- Colorado Extension Service
- Montana Experiment Station
- Utah Experiment Station

FEDERAL

- Department of Agriculture
 - Forest Service
 - Soil Conservation Service
- Department of Interior
 - Bureau of Reclamation
 - Indian Service
 - Geological Survey
 - National Park Service
- Department of Commerce
 - Weather Bureau
- War Department
 - Army Engineer Corps

PUBLIC UTILITIES

- Colorado Public Service Company
- Western Colorado Power Company
- Montana Power Company
- Denver and Rio Grande Western R. R. Company

MUNICIPALITIES

- City of Bozeman
- City of Denver
- City of Boulder

WATER USERS ORGANIZATIONS

- Poudre Valley Water Users' Association
- Arkansas Valley Ditch Association
- Colorado River Water Conservation District

IRRIGATION PROJECTS

- Farmers Reservoir and Irrigation Company
- San Luis Valley Irrigation District
- Santa Maria Reservoir Company
- Costilla Land Company
- Uncompahgre Valley Water Users' Association
- Wyoming Development Company
- Goshen Irrigation District
- Kendrick Project
- Pathfinder Irrigation District
- Salt River Valley Water Users' Association
- San Carlos Irrigation and Drainage District
- Twin Lakes Reservoir and Canal Company

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